

Patent Claims

1. Dental material containing an amide of the general formula BX_n in which

B stands for a hydrocarbon radical with 1 to 50 carbon atoms which can contain one or more of the groups O, S, NH, CO-NH, O-CO-NH and/or NH-CO-NH, and which is substituted n times with the group X,

X stands for the group



which is bound to the radical B via the nitrogen atom or via C-2, the bond site not connected to B carrying a radical R^2 ,

R^1 is hydrogen, an alkyl group with 1 to 20 carbon atoms or a phenyl radical, two or more radicals X being able to share a radical R^1 and R^1 also being able to be a constituent of the radical B,

R^2 is hydrogen, an alkyl group with 1 to 20 carbon atoms or a phenyl radical, and

n is a number from 2 to 5.

2. Dental material according to claim 1, characterized in that

B stands for a saturated, linear or branched aliphatic group with 2 to 15 carbon atoms which can contain one or two of the groups S, NH, O, NH-CO-O or O-CO-NH, for a cycloaliphatic group with 6 or 15 carbon atoms, an aromatic or non-aromatic heterocyclic radical with 3 to 10 carbon atoms and 1 to 3 heteroatoms, an aromatic radical with 6 to 12 carbon atoms or a combination of these radicals,

R^1 is hydrogen or a C_1 to C_5 alkyl group,

R^2 is hydrogen or a C_1 to C_5 alkyl group,

n is 2 or 3.

3. Dental material according to claim 1 or 2, characterized in that B carries, in addition to the group X, one or more substituents which are chosen from Cl, Br, OH and/or COOH.
4. Dental material according to one of claims 1 to 3, characterized in that R^1 and/or R^2 are substituted once or several times, the substituent or substituents being chosen from Cl, Br, OH and/or COOH.

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5. Dental material according to one of claims 1 to 4, characterized in that it contains a polymerization initiator and optionally a polymerizable binder.
6. Dental material according to claim 5, characterized in that it contains at least one acidic polymerizable monomer.
7. Dental material according to claim 5 or 6, characterized in that it contains at least one ethylenically unsaturated polymerizable monomer.
8. Dental material according to claim 7, characterized in that it contains a polyfunctional polymerizable monomer.
9. Dental material according to one of claims 5 to 8, characterized in that the quantity of the amide BX_n relative to the sum of the masses of the amide BX_n and other polymerizable monomers is more than 3 wt.-%, preferably more than 10 wt.-%.
10. Dental material according to one of claims 5 to 9, characterized in that it contains an initiator for the photopolymerization.
11. Dental material according to one of claims 1 to 10, characterized in that it contains filler.

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12. Dental material according to one of claims 1 to 11, characterized in that it contains at least 1 wt.-% preferably at least 5 wt.-% of the amide BX_n relative to the overall mass of the dental material.

13. Dental material according to one of claims 1 to 12, characterized in that it contains

- (a) 1 to 90 wt.-% of the amide BX_n ,
- (b) 0.1 to 5.0 wt.-% polymerization initiator,
- (c) 0 to 70 wt.-% polymerizable monomer (non-acidic),
- (d) 0 to 70 wt.-% acidic polymerizable monomer,
- (e) 0 to 70 wt.-% filler,
- (f) 0 to 70 wt.-% solvent

in each case relative to the overall mass of the dental material.

14. Use of an amide of the general formula BX_n in which

B stands for a hydrocarbon radical with 1 to 50 carbon atoms which can contain one or more of the groups O, S, NH, CO-NH, O-CO-NH and/or NH-CO-NH, and which is substituted n times by the group X,

X stands for the group



which is bound to the radical B via the nitrogen atom or via C-2, the bond site not connected to B carrying a radical R^2 ,

- R^1 is hydrogen, an alkyl group with 1 to 20 carbon atoms or a phenyl radical, two or more radicals X being able to share a radical R^1 and R^1 also being able to be a constituent of the radical B,
- R^2 is hydrogen, an alkyl group with 1 to 20 carbon atoms or a phenyl radical, and
- n is a number from 2 to 5

as dental material or for the preparation of a dental material.

15. Use according to claim 14 as dental adhesive, coating material, filling material or dental cement.

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